

**City of San Diego
Policies and Procedures for
Timing Yellow and All-Red Intervals At Traffic Signals**

THE YELLOW INTERVAL:

CalTrans yellow intervals to be used at signalized intersections:

Approach Speed		Yellow Intervals
(mph)	(km/h)	(seconds)
25 or less	40	3.0
30	48	3.2
35	56	3.6
40	64	3.9
45	72	4.3
50	80	4.7
55	89	5.0
60	97	5.4
65	105	5.8

THE DILEMMA ZONE:

\$ The functional purpose of the yellow interval is to eliminate the “Dilemma Zone.” The Dilemma Zone is described as follows:

\$ At the onset of the yellow interval, motorists need to decide to either come to a stop if they have enough distance to do so or proceed to cross the stop line if they are too close to stop.

\$ A “Dilemma Zone” is a situation that occurs where a driver is too close to the stop line to safely stop, but does not have enough time to safely (without accelerating) cross the stop line during the yellow time.

\$ An adequately timed yellow interval can eliminate such a “Dilemma Zone.”

\$ To eliminate the dilemma zone, the distance traveled during the yellow time (without acceleration) must be equal to the distance a vehicle needs to safely and comfortably come to a stop.

\$ In order to minimize the potential of a vehicle being in the dilemma zone, vehicle detection loops are installed on high-speed approaches in advance of the intersection to provide a green signal extension to each vehicle passing the loop.

THE ALL-RED CLEARANCE INTERVAL:

- \$ The CalTrans Traffic Manual does not require an all-red interval. The California Vehicle Code allows a vehicle that has entered the intersection on a yellow signal indication to clear the intersection during the red signal indication.
- \$ The City of San Diego uses a minimum of 1.0 second all-red interval.
- \$ At intersections where there is a history of accidents, the approach speeds are high, and/or the intersection geometry is nonstandard, then an all-red interval of up to 2.0 seconds may be considered.
- \$ Longer all-red intervals may cause unnecessary delay without additional safety benefits.

MINIMUM YELLOW SIGNAL TIMING:

- \$ The City uses a minimum 3.2 second yellow time. The yellow interval is adjusted when there is evidence such as a speed survey that a longer period can be justified due to speeds higher than 30 miles per hour or steep grades.